Technical Assistance for Public Drinking Water Systems

# The Idaho Drinking Water Newsletter Department of Environmental Quality Idaho Drinking Water Program

www.deq.idaho.gov/water/prog\_issues.cfm

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Part 2 of the Ground Water Rule (GWR) series – information you need to know

# GWR's triggered source water monitoring

Before reading this article, you may want to review the last issue of the Idaho Drinking Water Newsletter (Issue #49), which provided an introductory overview of the major requirements of the Ground Water Rule (GWR). Part 2, and the following articles in the series, will explain in more detail specific sections of the GWR that become effective December 1, 2009.

Part 2 specifically focuses on a requirement of the revised rule that will apply to the majority of Idaho systems that are subject to the GWR – "triggered source water monitoring."

All systems subject to the GWR will be required to conduct source water monitoring unless the system already provides treatment for a 99.99 percent (also known as "4-log") inactivation or removal of viruses. (*Note:* The commonly used term "4-log treatment" is based on a logarithmic scale [abbreviated as "log"] and refers to a level of treatment capable of removing or inactivating 99.99% of the target organisms.)

### Triggered monitoring

Each time a *routine* Total Coliform Rule (TCR) sample is found to be positive for total coliform bacteria, it "triggers" the requirement that a ground water system must collect a sample from *each* ground water source in use at the time the positive TCR sample was taken. The system must then have the sample analyzed for *E. coli*.

This triggered source sample must be taken within 24 hours of the time that the system was notified of the positive routine TCR sample. The source sample must be collected at the location *prior to any treatment* so that it will represent the quality of the raw ground water.

Systems serving 1,000 or fewer customers may use a source sample to meet the GWR triggered monitoring requirement, and also to serve as one of the four repeat samples required under the TCR.

Larger systems with multiple sources and distribution system pressure zones may develop a triggered source water monitoring plan. This plan would identify the source or sources that are tied to each TCR sampling site instead

of having to sample all of their wells. DEQ may require that a representative triggered monitoring plan be submitted for agency review and approval.



DEQ has the authority under the GWR to require assessment source water monitoring, if the agency believes that triggered monitoring is not likely to accurately characterize the microbial quality of a ground water source. At a minimum, assessment source water monitoring would consist of monthly source samples for one year.

### What to do if a source sample is *E. coli* positive

A system that is notified of an *E. coli* positive source sample will be required to provide public notice within 24 hours (see public notification templates, www.epa.gov/ogwdw/publicnotification/compliancehelp\_templates.html).

The system may also be required to take five additional samples from the same source within 24 hours and have these analyzed for *E. coli*, or *the system may be directed by DEQ to perform one or more of the following corrective actions:* 

- identify and remove the source of contamination;
- provide an alternative water source;
- correct any significant deficiencies that could be causing the contamination; or
- provide 4 logs virus treatment and conduct compliance monitoring.

If a system is required to take five additional source samples and if any of these samples are positive for *E. coli*, the system will have no choice but to perform one or more of the corrective actions listed above.

If completion of corrective actions will require a significant period of time, DEQ may impose interim public health protection measures, such as temporary disinfection of the contaminated source.

The next article (Part 3) in this GWR series will describe the steps that systems must take if they want to avoid triggered or assessment source monitoring.

# Upcoming revisions to the Lead/Copper Rule

If the legislative approves, the Idaho rule becomes effective in Spring 2009

In October 2007, EPA published its long awaited Short-Term Revisions to the Lead and Copper Rule (LCR). The overall purpose of the LCR is to protect populations from exposure to lead and copper in drinking water and reduce potential health risks associated with the two contaminants.

The intent of the short-term revisions is to strengthen the implementation of the existing LCR in seven targeted areas:

- 1. Minimum number of samples required;
- Definitions for "compliance period" and "monitoring period";
- 3. Reduced monitoring criteria;
- 4. Consumer notice of lead tap water monitoring results for all locations that were sampled by the drinking water system;
- 5. Advanced notification and approval of long-term treatment changes;
- 6. Public education requirements; and
- 7. Reevaluation of previously "tested out" lead service lines that exceeded the lead action level.

The revisions to the LCR do not amend the portion of the regulations related to copper nor change the action levels for lead (0.015mg/L) or copper (1.3mg/L).

The revisions apply to community drinking water systems and non-transient non-community drinking water systems, and continue to exclude transient non-community drinking water systems from the requirements. These changes will provide more effective protection of public health by reducing exposure to lead in drinking water.

### Consumer notification

It is important to note that EPA has added a new notification requirement that will require all public

drinking water systems to provide consumers, who occupy homes or buildings that are part of a system's monitoring program, with sample results when their drinking water is tested for lead (including those who do not receive water bills). This requirement includes all sample results, even those results that do not exceed the action level of 0.015mg/L.

DEQ will present the revised rule to the state legislature in January 2009 and if adopted, the rule will become effective the day the 2009 Legislature adjourns.

### More information

The next issue of the Idaho Drinking Water Newsletter will focus on the seven targeted rule changes listed above and highlight the specific revisions in more detail. For more information on the Lead and Copper Rule's Short-Term Revisions, please visit EPA's web site at www.epa.gov/safewater/lcrmr/.

# Are you having technical problems with your system?

Your first step should be to contact DEQ

The Department of Environmental Quality (DEQ) urges systems to contact and work with DEQ staff to resolve problems early.

When problems arise with a public drinking water system, owners and operators are encouraged to contact DEQ for assistance.

Owners and operators of public drinking water systems hold in their trust the health of each individual that is being served drinking water. Not addressing drinking water system problems can cost more than money. Canada's Walkerton, Ontario drinking water outbreak in 2000 involved seven deaths, hundreds of illnesses, and is a strong reminder to all of us in the industry of the importance of protecting public health.

Recently, DEQ fielded a complaint from a concerned operator regarding the methods and approaches being taken to operate one of the state's surface water treatment

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# Looking for a grant or loan for your drinking water system?

Does your public drinking water system need to develop a new source of water, construct a new storage tank, improve treatment capabilities for arsenic removal, or just rehabilitate aging distribution lines?

DEQ is soliciting interest from public drinking water systems that want, or need, to upgrade or improve some part of their system. The following questions and answers may help you decide if you want to pursue DEQ funding assistance.

#### What is a DEQ drinking water planning grant?

Planning grants help communities prepare a facility plan or engineering report that identifies system problems, considers alternatives for cost effective solutions, and evaluates the viability of the proposed project. Planning grants provide 50% of the funds needed to develop a facility plan or planning study, and the community provides the remaining or "matching" 50%.

What is a DEQ drinking water loan? Loans provide low interest funding of up to 100% of project costs to design and construct the improvements identified in the facility plan. Loans are generally paid back over a 20-year period with relatively low interest rates (the interest rate for state fiscal year 2009 is 3.25%).

# Who is eligible for DEQ planning grant or loan monies? Public or privately owned community drinking water

Public or privately owned community drinking water systems and nonprofit non-community drinking water system are eligible to receive a DEQ grant or loan.

When is DEQ funding available? DEQ will have planning grant monies and loan monies to award to public drinking water systems during state fiscal year 2010, which begins July 1, 2009. The planning process to determine who receives funding, however, has already begun.

### How do I let DEQ know I want a grant or loan?

Discuss your system's issues and financial needs with your DEQ Regional Office drinking water staff engineer (see regional engineer contacts at right). Then submit a Letter of Interest (LOI) to DEQ for review and placement on the priority list.

The time to submit the LOI is **now** — anytime from November 18, 2008 to January 16, 2009. Go to: www.deq. idaho.gov/water/permits\_forms/forms/waste\_water/forms.

cfm and click on the Grant or Loan headings to examine the forms. The LOI forms may be filled out on-line or hard copies of the forms are also available from your DEQ Regional Office.

Does my system automatically receive funding after I submit a letter of interest? No. In order to distribute funding fairly, all interested systems throughout the state are rated and ranked by the six regional DEQ staff engineers according to the severity of the public health, water quality, or infrastructure problems.

# When would the money be available? DEQ will begin awarding grant and loans in

July 2009. Those systems ranking highest (based on the severity of problems and the system's readiness to proceed) fall within the "fundable" range and are invited to apply for funding first. Grant and loan funding assistance will be awarded until funding resources are exhausted.

## **DEQ STATE OFFICE CONTACT:** Nancy Bowser 208-373-0406

### DEQ REGIONAL OFFICE CONTACTS:

BOISE OFFICE: Mark Mason 208-373-0550

COEUR D'ALENE OFFICE: Katy Baker 208-769-1422

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plants. The owner of this particular system decided to operate the treatment plant in a manner that endangered the individuals consuming water from the system.

### Investigation

Because of the nature of the complaint, DEQ in this case conducted an investigation with EPA's Criminal Investigation Division. The investigation found that the operators were falsifying treatment plant data and then submitting the false data to the state, thus creating a health hazard.

Filter controls set at the surface water treatment plant were intentionally bypassed thereby allowing water of unknown quality to be served to their community over a period of several years. Surface water sources of drinking water are

considered to be the highest risk for causing potential illness and therefore, require the most controls and barriers to prevent introduction of disease-causing organisms.

Neither DEQ nor the system operators or owners had any record of trying to correct the problems or to alert DEQ so appropriate steps could be taken. Ultimately, the treatment plant equipment manufacturer was contacted and made the necessary corrections, which took less than two days and the plant has been functioning properly ever since.

The message here is do not wait for problems to go away or correct themselves. Contact DEQ for assistance. DEQ would rather help solve a problem and work with the system owners, than investigate a criminal act.

### Training Schedule

Class/Sponsor

Automatic Control Valves (IRWA) - Water

**Location/Date** 

Hayden, February 3-4, 2009

Note: Water and wastewater training is provided by Brown Environmental, Inc., and the Idaho Rural Water Association (IRWA). Brown Environmental's new training information was not available in time for the publication of this issue of the newsletter, but will be available for the next issue (#51).

For more information on training classes, please see the web sites and telephone numbers listed below:

### Brown Environmental, Inc.

1-800-543-4358 or for the Boise area, 208-465-5725

Web site: www.idahooperatortraining.com/

Register for classes at

www.idahooperatortraining.com/workshopapp.htm

#### **Idaho Rural Water Association**

1-800-962-3257 or 208-343-7001 or 208-582-0592

E-mail: shammons@idahoruralwater.com. Web site: www.idahoruralwater.com/

### Pending DEQ rulemaking

### Revision and clarification of Facility/Design Standards

DEQ's proposed revisions to the Idaho Rules for Public Drinking Water Systems (IDAPA 58.01.08), regarding the Revision and Clarification of Facility and Design Standards, has been adopted by the Board of Environmental Quality and is now pending review by the 2009 Idaho State Legislature for final approval.

The objective of this rulemaking is to modify the recently updated Idaho Rules for Public Drinking Water Systems so that the engineering community can approve simple water main extensions as intended by the 2005 Senate Bill 1220 and as codified at Idaho Code § 39-118. The effective date of the revision, if approved by the Legislature, will be on the day of the adjournment of the 2009 legislative session.

Further information, including the text of the pending rule, can be found at: www.deq.idaho.gov/rules/drinking\_ water/58\_0108\_0801\_pending.cfm



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